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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,433	06/25/2003	Hiro Yoshi Kazumori	116-031068	4312

7590 05/14/2004

David C. Hanson
700 Koppers Building
436 Seventh Avenue
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EXAMINER

HASHMI, ZIA R

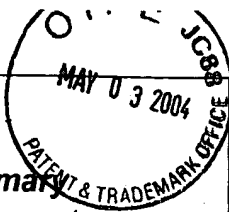
ART UNIT PAPER NUMBER

2881

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary



Applicant No.

10/603,433

Applicant(s)

KAZUMORI, HIROYOSHI

Examiner

Zia R. Hashmi

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/26/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9 are rejected under U.S.C. 103(a) as being unpatentable over Todokoro et al. (6,444,981), in view of Winkler et al. (Pub. No: US 2002/0053638 A1).
3. With respect to independent claims 1 and 7, Todokoro et al. disclose method and apparatus of a scanning microscope (SEM) comprising: an electron gun for producing electron beam (col. 1, lines 12-14, col. 4, lines 6-9 and 1 in Fig. 1 & 2); an objective lens for sharply focusing the electron beam into a specimen (Abstract, line 4, col. 5, line 39 and 17 in Fig. 1); a power supply for applying a negative voltage to the specimen (col. 1, lines 51-52 & 56, col. 2, lines 30-34, col. 4, lines 19-20, col. 12, lines 25-27, and 13 in Fig. 1); the improvement comprising a shield electrode for surrounding an electron beam path between the objective lens and the specimen (Abstract, lines 3-4, col. 4, lines 16-18, col. 5, lines 53-55, and 27 in Fig. 1), a shield electrode insulatively mounted (27 in Fig. 1), wherein an electric potential substantially identical to an electric potential at pole pieces of the objective lens is applied to the shield electrode, and an electric potential substantially identical to an electric potential at the specimen and the shield electrode (col. 8, lines 10-33, Fig. 6-8 and 17, 22 & 13, 27 in Fig. 2).

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4. With respect to claims 1-9, Todokoro et al. fail to disclose a specimen tilting means relative to electron beam. Winkler et al., however, disclose a specimen tilting means relative to the electron beam axis (para 0005, lines 1-6 and 15 in Fig. 3).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine methods and apparatus of Todokoro and Winkler et al. and add features like a retracting mechanism for retracting shield electrode, or means of moving shield electrode along the beam axis, or varying distance between the specimen and the objective lens, because Todokoro et al. teach (col. 1, lines 29-35) that since the micro-processing has been greatly improved in the semiconductor industry, SEM have been widely used for examining the processing of semiconductor elements in place of optical microscope.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shabar et al. disclose (5,591,971) a shielding device for improving measurement accuracy and speed in scanning electron microscopy.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact Electronic Business Center (EBC) at 866-217-9197 (toll-free).

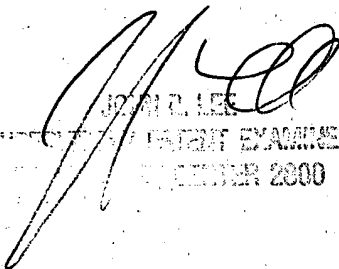
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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zia Hashmi whose telephone number is (571) 272-2473.

The examiner can normally be reached between 8.30 AM- 5 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477.

Zia Hashmi

March 26, 2004.


JOHN R. LEE
SUPERVISOR
PATENT EXAMINER
FEBRUARY 2000